

IN THE CLAIMS:

Please amend Claims 1 to 18 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Currently amended) A printing control method of converting original data into print data processible by a printing apparatus, comprising:

a displaying step of displaying a first setting screen to set a basic attribute applied to whole print data and a second setting screen to set a back-side attribute applied to all pages corresponding to the back side of the printing medium output in the double-sided printing;

a setting step of setting the [[a]] basic attribute using the first setting screen applied to the whole print data in generating the print data, a double-sided printing setting, and the [[a]] back-side attribute using the second setting screen applied to a page corresponding to a back side of a sheet serving as a printing medium in the double-sided printing setting;

a determining step of determining whether an object page to be converted into the print data corresponds to the front side of the printing medium or the back side of the printing medium; and

a conversion step of converting the original data of the object page into the print data in accordance with the basic attribute when the object page is determined in said determining step to be corresponding to the front side of the printing medium, converting the original data of the object page into the print data in accordance with the back-side attribute when the object page is determined in said determining step to be corresponding to the back side of the printing medium setting and the back-side setting set in the setting step.

2. (Currently amended) The method according to claim 1, wherein in the conversion step, the basic attribute setting is applied for an item other than an item having the back-side attribute setting.

3. (Currently amended) The method according to claim 1, wherein₁ in the conversion step, the back-side attribute setting is applied to, as a unit, one side of the sheet serving as a printing medium.

4. (Currently amended) The method according to claim 1, wherein₁ in the conversion step, metadata generated by an operating system is converted into the print data in accordance with the basic attribute setting and the back-side attribute setting while the back-side attribute setting is preferentially applied.

5. (Currently amended) The method according to claim 1, wherein₁ in the conversion step, while the basic attribute setting and the back-side attribute setting are referred to, various parameters necessary to convert a page corresponding to a front side of a sheet and various parameters necessary to convert a page corresponding to a back side are loaded in advance, and the parameters are alternately referred to in converting the pages.

6. (Currently amended) The method according to claim 1, wherein₁ in the conversion step, every time a page of interest is to be converted, various parameters for use are loaded and referred to by referring to the basic attribute setting and the back-side attribute setting.

7. (Currently amended) The method according to claim 1, wherein the setting step comprises a sheet selection step of selecting a type of sheet serving as a printing medium, and types of sheets in the basic attribute setting and the back-side attribute setting are changed in accordance with the type of sheet selected in the sheet selection step.

8. (Currently amended) The method according to claim 1, further comprising a step of, upon reception of a printing attribute setting value request from an application which generates the original data, sending back a printing attribute setting value for generating original data convertible into print data corresponding to the basic attribute setting and the back-side attribute setting in the conversion step.

9. (Currently amended) The method according to claim 8, wherein, in the setting step, a [[the]] type of sheet subjected to printing can be selected, border-free printing attribute setting can be selected for each of the basic attribute setting and the back-side attribute setting in accordance with the selected type of sheet, and when a type of sheet capable of border-free printing is set, a printable region of border-free printing is sent back to the application.

10. (Currently amended) The method according to claim 8, wherein, in the setting step, color printing or monochrome printing can be selected for each of the basic attribute setting and the back-side attribute setting, and color printing attribute setting is sent back to the application.

11. (Currently amended) The method according to claim 8, wherein₁ in the conversion step, when the double-sided printing attribute setting is done in the setting step, original data of one page received from the application for one plane is converted into print data and output for all sheets subjected to printing, and original data of each page received from the application for the other plane is converted into print data for the received page.

12. (Currently amended) The method according to claim 8, wherein₁ in the setting step, the basic attribute setting and the back-side attribute setting are changed in accordance with a printing attribute setting designated in the application.

13. (Currently amended) A printing control method of converting input drawing data into print data printable by a printing apparatus and transferring the print data to the printing apparatus, comprising:

a step of determining a basic attribute setting ~~serving as a printing setting~~ applied to [[the]] whole drawing data;

a step of recording in a setting table the basic attribute setting determined in the basic setting determination step;

a step of, when the drawing data is ~~to be~~ printed on two sides of a sheet ~~each of~~ sheets for a plurality of pages, determining a back-side attribute setting applied to only pages corresponding to back sides of the sheets;

a step of recording in the setting table the back-side attribute setting determined in the step of determining the back-side attribute setting; and

a generation step of generating the print data based on the basic attribute and the drawing data when the drawing data of an object page is data to be printed on the front side of the sheet, generating the print data based on the back-side attribute and the drawing data when the drawing data of the object page is data to be printed on the back side of the sheet determining a setting used for each page of interest from the setting table and generating print data on the basis of the determined setting.

14. (Original) The method according to claim 13, wherein the generation step comprises

a step of loading a first page of the drawing data from metadata generated by an operating system,

a step of converting data of the first page into print data in accordance with the basic setting and the back-side setting while preferentially applying the back-side setting,

a step of storing the print data of the first page,

a step of loading data of each of second and subsequent pages in the drawing data from the metadata,

a step of converting the data of each of the second and subsequent pages into print data in accordance with the back-side setting,

a step of outputting the print data of the second and subsequent pages to a printer,
and

a step of outputting the print data of the first page to the printer after outputting the print data of the second and subsequent pages.

15. (Currently amended) A printing control apparatus which converts original data into print data processible by a printing apparatus, comprising:

display means for displaying a first setting screen to set a basic attribute applied to whole print data and a second setting screen to set a back-side attribute applied to all pages corresponding to the back side of the printing medium output in the double-sided printing;

setting means for setting the [[a]] basic attribute using the first setting screen applied to the whole print data in generating the print data; a double-sided printing setting; and the [[a]] back-side attribute using the second setting screen applied to a page corresponding to a back side of a sheet serving as a printing medium in the double-sided printing setting;

determining means for determining whether an object page to be converted into the print data corresponds to the front side of the printing medium or the back side of the printing medium; and

conversion means for converting the original data of the object page into the print data in accordance with the basic attribute when the object page is determined by said determining means to be corresponding to the front side of the printing medium, converting the original data of the object page into the print data in accordance with the back-side attribute when the object page is determined by said determining means to be corresponding to the back side of the printing medium setting and the back-side setting set by said setting means.

16. (Currently amended) A printing control apparatus which converts input drawing data into print data printable by a printing apparatus and transferring the print data to the printing apparatus, comprising:

means for determining a basic attribute setting serving as a printing setting applied to [[the]] whole drawing data;

means for recording in a setting table the basic setting determined by said basic attribute setting determination means;

means for, when the drawing data is to be printed on two sides of each of a sheet sheets for a plurality of pages, determining a back-side attribute setting applied to only pages corresponding to back sides of the sheets;

means for recording in the setting table the back-side attribute setting determined by said means for determining the back-side attribute setting; and

generation means for generating the print data based on the basic attribute and the drawing data when the drawing data of an object page is data to be printed on the front side of the sheet, generating the print data based on the back-side attribute and the drawing data when the drawing data of the object page is data to be printed on the back side of the sheet determining a setting used for each page of interest from the setting table and generating print data on the basis of the determined setting.

17. (Currently amended) A computer-readable medium storing a computer program for recording product which records a program for converting original data into print data processible by a printing apparatus, wherein the program comprising: includes

a displaying step of displaying a first setting screen to set a basic attribute applied to whole print data and a second setting screen to set a back-side attribute applied to all pages corresponding to the back side of the printing medium output in the double-sided printing;

a code for a setting step of setting the [[a]] basic attribute using the first setting screen applied to the whole print data in generating the print data, a double-sided printing setting, and the [[a]] back-side attribute using the second setting screen applied to a page corresponding to a back side of a sheet serving as a printing medium in the double-sided printing setting;

a determining step of determining whether an object page to be converted into the print data corresponds to the front side of the printing medium or the back side of the printing medium; and

a code for a conversion step of converting the original data of the object page into the print data in accordance with the basic attribute when the object page is determined in said determining step to be corresponding to the front side of the printing medium, converting the original data of the object page into the print data in accordance with the back-side attribute when the object page is determined in said determining step to be corresponding to the back side of the printing medium setting and the back-side setting set in the setting step.

18. (Currently amended) A computer-readable medium storing a computer product which records a program for converting input drawing data into print data printable by a printing apparatus and transferring the print data to the printing apparatus, wherein the program comprising; includes

a code for a step of determining a basic attribute setting serving as a printing setting applied to [[the]] whole drawing data;

a code for a step of recording in a setting table the basic attribute setting determined in the basic setting determination step;

a code for a step of, when the drawing data is to be printed on two sides of each of a sheet sheets for a plurality of pages, determining a back-side attribute setting applied to only pages corresponding to back sides of the sheets;

a code for a step of recording in the setting table the back-side attribute setting determined in the step of determining the back-side attribute setting; and

a code for a generation step of generating the print data based on the basic attribute and the drawing data when the drawing data of an object page is data to be printed on the front side of the sheet, generating the print data based on the back-side attribute and the drawing data when the drawing data of the object page is data to be printed on the back side of the sheet determining a setting used for each page of interest from the setting table and generating print data on the basis of the determined setting.